REMARKS

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Office Action dated February 17, 2005 (U.S. Patent Office Paper No. 20050211). In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

Status of the Claims

As outlined above, claims 1, 2, 5 – 10 and 13 – 23 are currently pending in this application, wherein claims 3, 4, 11 and 12 are being canceled without prejudice or disclaimer, while claims 1, 5, 10, 19 and 20 are being amended to correct formal errors and to more particularly point out and distinctly claim the subject invention. In addition, new claim 23 is hereby submitted for consideration. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

Formal Objections or Rejections

Claims 7, 8, 13, 14 and 18 – 20 were objected to as being of improper Markush claim format. Claim 10 was rejected under 35 U.S.C. §112, second paragraph, for being indefinite.

As outlined above, claim 10 is being amended to more particularly point out and distinctly claim the subject invention. However, with respect to the objection against claims 7, 8, 13, 14 and 18 – 20, Applicants will contend that the claims are already in acceptable Markush claim format. MPEP §2173.05(H) states that: "[a]lternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims." Further, Example 20, p. AI-66 of the MPEP shows that the Markush claim format used in the above-noted claims is an acceptable format within the requirements of PCT practice, and thus within the requirements of U.S. patent practice. Consequently, Applicants respectfully request that the objection to the claims be withdrawn.

Prior Art Rejections

The Examiner rejected claims 1-3, 5-11, 13, 16 and 18-20 under 35 U.S.C. §102(a) as being anticipated by Mullee (PCT Application No. WO 01/33613). In addition, he rejected claims 1, 3, 5, 10-11, 13-14, 16 and 18-20 under 35 U.S.C. §102(e) as being anticipated by Xu et al. (US Application No. 2003/0125225).

The Examiner rejected claims 1-3, 5-8, 11, 13, 14, 16 and 18-20 under 35 USC §103(a) as being unpatentable over Mullee (US Patent No. 6,206,564). Further, the Examiner rejected claims 4 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Mullee '564 in view of Mullee WO '613 and further in view of Vaartstra (US Patent No. 6,242,165); claims 2, 4, 6-9 and 12 as being unpatentable over Xu et al. '225; claims 21 and 22 as being unpatentable over Mullee '564, Mullee WO '613, Xu et al. '225 and further in view of McCullough et al. (US Patent No. 5,976,264); and finally claim 9 as being unpatentable over Mullee '564 in view of McCullough et al. '264 or Mullee WO '613.

The present invention as now claimed in claim 1 is directed to a composition for removing residues from the microstructure of an object that incorporates carbon dioxide; an additive for removing the residues comprising a fluoride having a formula $NR_1R_2R_3R_4F$, where R_1, R_2, R_3, and R_4 are each independently an alkyl group; and a co-solvent for dissolving said additive in said CO_2 at a pressurized fluid condition.

As recited in claim 5, the present invention is directed to a composition for removing residues from the microstructure of an object that incorporates carbon dioxide, a compound having a hydroxyl group, a fluoride having a formula $NR_1R_2R_3R_4F$, where R_1, R_2, R_3, and R_4 are each independently or an alkyl group.

Further, as recited in claim 19, the present invention is directed to a composition for removing residues from the microstructure of an object that comprises carbon dioxide wherein the carbon dioxide is in a pressurized or a supercritical fluid state; an additive comprising a fluoride having a formula $NR_1R_2R_3R_4F$, where R_1, R_2, R_3, and R_4 are each independently an alkyl group, and mixtures thereof and optionally a basic compound; and a co-solvent selected from an alcohol, dimethylacetamide, propylene glycol, dimethylsulfoxide, deionized water, acetic acid, acetone, ethanol, propanol, dimethylformamide, N-methyl-2-pyrrolidone, diethylene glycol methyl ether, and mixtures thereof.

In claim 20, the present invention is recited as being directed to a composition for removing residues from the microstructure of an object, where the composition comprises from 0.001 to 8 weight percent of an additive comprising a fluoride having a formula

$NR_1R_2R_3R_4F$, where R_1, R_2, R_3, and R_4 are each independently an alkyl group, and mixtures thereof and optionally a basic compound; from 1 to 50 weight percent of a co-solvent selected from an alcohol, dimethylacetamide, propylene glycol, dimethylsulfoxide, deionized water, acetic acid, acetone, ethanol, propanol, dimethylformamide, N-methyl-2-pyrrolidone, diethylene glycol methyl ether, and mixtures thereof; and carbon dioxide.

Even more, the present invention as recited in claim 23 is directed to a composition for removing residues from the microstructure of an object that comprises carbon dioxide; an additive for removing the residues comprising a fluoride having a formula $NR_1R_2R_3R_4F$, where R_1, R_2, R_3, and R_4 are each independently a hydrogen or an alkyl group, and a quaternary ammonium hydroxide; and a co-solvent for dissolving said additive in said CO_2 at a pressurized fluid condition.

With respect to the references of Mullee WO '613 and Xu et al. '225, attached hereto is a translation of the Japanese priority application for the present application showing that the application date February 9, 2001 of the Japanese priority application pre-dates the International Publication Date May 5, 2001 of Mullee WO '613 and the US filing date November 25, 2002 of Xu et al. '225. As such, neither of these references is properly prior art against the present invention under 35 U.S.C. §102. Applicants are in the process of obtaining the verification statement in support of the translation, and will forward the verified translation in due course.

In contrast to the present invention, the Mullee '564 reference does not disclose or suggest compositions for removing residues containing, *inter alia*, alkyl ammonium fluorides. As such, Mullee '564 cannot by itself anticipate or render obvious each and every feature of the present invention as claimed. The present invention is distinguishable and thereby allowable over this prior art reference by itself.

Regarding the secondary references, as noted above, neither Mullee WO '613 nor Xu et al. '225 is citable as prior art against the present invention. Consequently, neither reference can be relied upon to provide any teaching or suggestion to make up for any deficiency in Mullee '564.

Further, the secondary reference of Vaarstra '165 also does not disclose, *inter alia*, a composition containing an alkyl ammonium fluoride in combination with supercritical CO_2 and any co-solvent disclosed and claimed in the present application. McCullough et al. '264 does not disclose, *inter alia*, a composition containing an alkyl ammonium fluoride in

combination with supercritical CO_2, surfactants containing CFx and/or methane, and any co-solvent disclosed in the present application.

All in all, the combination of the any or all of the properly citable references fall far short of rendering each and every feature of the present invention as claimed obvious to one of skill in the art.

Conclusion

In view of all the above, Applicant respectfully submits that certain clear and distinct differences as discussed exist between the present invention as now claimed and the prior art references upon which the rejections in the Office Action rely. These differences are more than sufficient that the present invention as now claimed would not have been anticipated nor rendered obvious given the prior art. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application as amended is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicant's undersigned representative at the address and phone number indicated below.

Respectfully submitted,

Stanley P. Fisher
Registration Number 24,344

Juan Carlos A. Marquez
Registration Number 34,072

REED SMITH LLP
3110 Fairview Park Drive
Suite 1400
Falls Church, Virginia 22042
(703) 641-4200

May 17, 2005